VIII. Issues, Goals, and Recommendations

The Assessment information presented in earlier sections, along with input from the public and the combined experiences of the land management professionals working in the EOEA agencies, was used to identify a number of resource management issues and needs. Some of these are specific to Berkshire ecoregions; while others are statewide issues, or may apply to multiple ecoregions. A number of management recommendations have also been identified from this set of issues. These recommendations will help guide future management activities and planning on state-owned properties in the ecoregions as well as provide guidance to private landowners. Further, it is hoped that conservation organizations, large forestland owners, and other private landowners in the ecoregions will use this document in planning management activities on their properties.

It is important to recognize that decisions about how to manage forestland, whether public or private, is based on a number of factors, including landowner values and objectives. On state lands, such decisions are often guided by legislation and agency policies. Accordingly, prior to listing the issues, it is useful to summarize the missions and mandates for the three state divisions that manage the state lands within the Berkshire Ecoregions.

Massachusetts' Land Management Agencies

The 2003 reorganization of Massachusetts state government resulted in several agency name changes. In particular, the former Metropolitan District Commission (MDC) and the Department of Environmental Management (DEM) were combined to form the Department of Conservation and Recreation (DCR). Two new divisions within this department have primary responsibility for public land management: the Division of State Parks and Recreation (DSPR, which controls approximately 285,000 acres) and the Division of Water Supply Protection (DWSP, controlling approximately 103,000 acres). The former Department of Fish, Wildlife and Environmental Law Enforcement was renamed the Department of Fish and Game (DFG), within which the Division of Fisheries & Wildlife (DFW; also known as MassWildlife) controls approximately 126,000 acres statewide.

Following is an overview of the missions and mandates of these three state land management divisions.

Division of State Parks and Recreation

The Division of State Parks and Recreation is dedicated to improving the quality of life in the Commonwealth of Massachusetts by conserving our natural and cultural resources through professional stewardship, connecting people to these resources through recreation and education, and cooperating and partnering with others who share this common purpose. DSPR is the steward of about 285,000 acres of the state's forests, beaches, mountains, ponds, trails, and parks. The DSPR protects land and resources on privately and municipally held land through technical assistance, grant programs, planning programs, policy development and other resource protection services. The Division's stewardship of natural and cultural resources provides significant benefits to the Commonwealth and its citizens including: clean water, open space, wildlife, habitat, timber, environmental education, and opportunities for outdoor recreation and renewal. The authorities and responsibilities for DSPR are set forth in M.G.L. Chapters 21, 132, and 132A. These laws can be found by searching the following web site: ***www.mass.gov/legis/laws/mgl/mgllink.htm***. Additional information about DCR can be found at: ***www.mass.gov/dcr/forparks.htm***

The DCR Bureau of Forest Fire Control and Forestry exists to protect the public's interest in the both the private and public forestlands of Massachusetts. These public interests include: water conservation, flood and soil loss prevention, wildlife habitat, recreation, protection of water and air quality, fire management, and a continued and increasing supply of forest products. Enabling legislation (See Ch. 26 of 2003, SECTION 393: ***www.mass.gov/legis/laws/seslaw03/sl030026.htm***) states that the State Forests shall be "in perpetuity income producing." This same legislation also states that the Bureau shall manage to "improve" these same forests. It is this balance that is at the heart of the Bureau and its social responsibility. More specifically, Massachusetts General Law Chapter 132 defines the mission of the Bureau.

The Bureau meets its responsibility through the careful, thoughtful consideration of ecological, social, and economic factors. All resources are considered and managed for in a holistic, integrated manner. Well-defined desired conditions are established for each resource, and management objectives and guidelines are described to meet the needs of each.

The Bureau fulfills its mission by first providing for native healthy ecosystems, rare landscape features and species, water quality, site and forest productivity, and aesthetics. Given these factors, state forests are managed to provide a variety of forest conditions ranging from open-lands to very old late-successional forests to provide a range of habitats and forest conditions to meet ecological, social, and economic considerations. The Bureau accomplishes these objectives by designing and implementing silvicultural systems. The Bureau strives to provide high quality forest products in a sustainable, environmentally and socially responsible manner. Additional information on DCR Forestry programs can be found at the following web site: ***www.mass.gov/dcr/stewardship/forestry/index.htm*** .

Division of Fisheries and Wildlife

The Massachusetts Division of Fisheries and Wildlife's (DFW) statutory responsibility provides for the conservation (including protection, restoration, and management) of Massachusetts' flora and fauna (Darey and Jones, 1997). Species of flora and fauna rarely exist in isolation, but rather occur in assemblages, or natural communities. In turn, each natural community dynamic is driven by ecosystem processes, such as natural disturbances, nutrient cycling and energy flow. This interaction between the complex of species, natural communities, and ecosystem processes represents DFW's working definition of biological diversity, or 'biodiversity'.

DFW strives to accommodate a variety of cultural demands on the 130,000 acres of state wildlife lands, including traditional uses such as non-motorized public recreation and production of renewable wood products. However, the degree to which cultural activities are appropriate on DFW forestland must be determined by the agencies' ability to meet its goal of biodiversity conservation. Biological inventories combined with subsequent biological monitoring of species and communities on both actively managed lands (e.g., where harvest of wood products occurs), and on passively managed lands (e.g. Forest Reserves) will be used to verify that DFW is meeting its biodiversity conservation goal.

Forest management policy should recognize the role that natural disturbance processes play in the maintenance of biodiversity (DeGraaf and Miller, 1996). Preserving biodiversity in temperate forest regions requires maintenance of all seral stages, including the creation of early-seral habitats and the preservation or re-creation of late-seral or old-growth forests (Franklin, 1988). Therefore, in order to conserve biodiversity, the management of DFW forestland will include both the designation of some natural ecosystems as Forest Reserves (areas that are not subject to wood products extraction) as well as commodity production in modified, semi-natural (managed) ecosystems (Hunter, 1996; Irland, 1999). Successful strategies for conservation of biological diversity in temperate forest regions must effectively

address the designation of networks of reserves as well as a managed forest matrix (Lindenmayer and Franklin, 1997).

Forest management on DFW lands includes both active silviculture to create and maintain structurally diverse forests, including early successional forest habitat, as well as passive management, primarily including the potential establishment of a system of Forest Reserves that will eventually develop late successional forest habitat values, function and structure. General landscape composition goals for DFW forestland presently include 15-20% early-seral forest (seedling/sapling and small pole trees generally ≤30 years old), 65-75% mid-seral forest (large pole and sawtimber generally 30-150 years old), and 10-15% late-seral forest.

To accomplish its landscape composition goal for early-seral forest, DFW would need to regenerate 500-550 acres annually using modified even-aged silviculture. These anticipated silvicultural treatments would likely generate 2.0-2.5 million board feet (MMBF) of timber annually from publicly-bid sales on actively managed forestland (due to on-going staffing limitations and a current focus on inventory and planning, DFW typically treated <200 acres annually, and generates <1 MMBF of timber from publicly-bid sales). Part or all of the DFW goal for late-successional forest habitat may be met through the establishment of a system of Forest Reserves in conjunction with DCR (to learn more about forest reserves, visit the EOEA Forest Management webpage at: ***www.mass.gov/envir/forest/default.htm***).

Ecoregions serve as the fundamental planning unit for all forest management decisions, and DFW properties are grouped into nine forest management zones on an ecoregion basis. Following the guidance provided in the ecoregion documents, management zone plans are drafted for various DFW properties that merge individual site plans that had previously been drafted on a property by property basis. All planned silvicultural treatments described within a management zone plan are reviewed internally by the Natural Heritage section and by the appropriate regional DFW District office. After internal review is completed, a Chapter 132 forest cutting plan is submitted to DCR, and a timber sale contract is completed through a public bidding process.

Silvicultural treatments on DFW forestland create extensive, structurally diverse stands across a range of seral forest stages. DFW land managers attempt to incorporate elements of natural disturbance patterns into managed forestland by extending conventional rotation lengths, increasing stand size, retaining clusters of mature trees, and fostering heterogeneity of tree species, tree quality, and tree size classes. Biological monitoring activities are conducted before and after the implementation of management activities at selected sites. This information can be used to modify future prescriptions. Additional information can be found in the "Draft Management Plan for the Berkshire Highlands" at the following DFW web site: ***www.mass.gov/dfwele/dfw/dfwpdf/dfw_berkshire_fmz_first_draft.pdf***

For more information on DFW go to:
The Agency and Programs: ***www.mass.gov/dfwele/dfw/dfwwld.htm***
Land Protection: ***www.mass.gov/dfwele/dfw/nhesp/nhprot.htm***
Education Programs: ***www.mass.gov/dfwele/dfw/dfweduc.htm***
Biodiversity Initiative: ***www.mass.gov/dfwele/dfw/bdi/bdihome.htm***
Ecological Restoration Program: ***www.mass.gov/dfwele/dfw/nhesp/nhrest.htm***
Upland Habitat Management Program: ***www.mass.gov/dfwele/dfw/bdi/uplandintro.htm***
Natural Heritage and Endangered Species Program: ***www.mass.gov/dfwele/dfw/nhesp/nhesp.htm***
Mass. Comprehensive Wildlife Conservation Strategy: ***www.mass.gov/dfwele/dfw/cwcs/dfw_cwcs.htm***

Division of Water Supply Protection ***(Please note that this Division does not hold lands within the Berkshire Ecoregions)***

The Division of Water Supply Protection has a mandate to "utilize and conserve…water and other natural resources in order to protect, preserve and enhance the environment of the commonwealth and assure availability of pure water for future generations" (Chapter 372 of the Acts of 1984). Within this statute, the Division is also directed to periodically prepare watershed management plans that shall provide for "forestry, water yield enhancement and recreational activities." Additional mandates are included in Chapter 737 (1972), including maintenance of the natural ecology, flora and fauna, balanced wildlife habitat and the balance of nature. It further directs that management activities shall maintain and conserve a state of natural ecological balance consistent with watershed protection purposes.

As detailed earlier, the Division of Water Supply Protection is primarily mandated to protect and provide sufficient quantities of high quality drinking water to serve the needs of 2.5 million people, approximately 40% of the population of the Commonwealth, in perpetuity. While periodic droughts have raised the issue of water quantity, the lasting focus of management is on protecting water quality. Changes in drinking water laws and regulations have significantly impacted the approach to managing naturally filtered surface supplies, including all of the DWSP supplies. The Federal Safe Drinking Water Act (SDWA) became law in 1974, and set national standards for maximum contaminant levels and treatment techniques. Amendments to the SDWA in 1986 established a priority for using filtration as a dominant treatment technique. The EPA addressed this priority through the Surface Water Treatment Rule of 1989 (SWTR), which essentially required that all surface water supplies be filtered unless a supply could pass a rigorous test allowing it to qualify for a waiver from filtration. The SWTR established disinfection and monitoring requirements and set new limits for pathogens and turbidity, which indicate the success or failure of either artificial or natural filtration.

While the details are beyond the scope of this document, DWSP and the Massachusetts Water Resources Authority (MWRA) prevailed in a filtration lawsuit initiated by EPA, retaining permission to rely on natural filtration processes to protect water quality. The active management of forests and wildlife are considered part of a conservative approach to maintaining natural filtration, while also reducing the cost of drinking water to MWRA consumers. Wildlife has presented the greatest immediate challenge to this approach. In particular, seagulls and geese, which favor large open water bodies for roosting, transport pathogens that can threaten human health. Large scale efforts to reduce the impacts of these species have been underway for the past decade or more, and have been successful in meeting the SWTR requirements. In addition to managing these bird species, the Division turned its attention to the overabundant deer population in the forest surrounding Quabbin Reservoir during the past 15 years. Models developed within the region suggested that a catastrophic wind event could greatly impact the existing forest cover and that the absence of tree regeneration on the Quabbin watershed, as a result of high deer impacts, was incompatible with the desire to maintain predictable long-term natural filtration of the drinking water supply. Therefore, following a lengthy public process, the Division began managing the deer population in 1991, and has restored the ability of the forest to regenerate as a result.

In addition to managing wildlife, Land Management Plans for each watershed establish goals for diversifying both age and species structure of the forest cover. Objectives for meeting these goals call for maintaining an understory as the "reserve" or future forest; a midstory for its rapid nutrient uptake; and an overstory for its regulation of organic decomposition, its provision of seed, and the water infiltration and retention function of its deep root system. These canopy layers are to be balanced, using primarily a small-group selection system of uneven-aged silviculture and an irregular shelterwood system of even-aged silviculture, throughout the managed forests. The working hypothesis of this approach is that frequent disturbances of the scale of small group selection silviculture will lessen the amplitude of infrequent but catastrophic large-scale disturbances. In setting this approach in motion, DWSP also made a commitment that any short-term negative effects of silviculture would not exceed the long-term benefits

to drinking water derived from this deliberate forest structuring. While there has been no decline in raw water quality during the past forty years of active management of these forests, a more intensive monitoring effort has begun recently that is designed to quantify the effects of incorporating more deliberate restructuring of the forest cover into the protection of unfiltered surface supplies of drinking water.

In addition to these focused efforts to address drinking water quality through natural resources management, DWSP management affects the protection and production of habitats for both common and rare wildlife, the conservation of biological diversity, the recreational uses of DWSP properties, landscape aesthetics on many scales, and the local economy. These secondary objectives are addressed in Land Management Plans, Watershed Protection Plans, and Public Access Management Plans for the watersheds. Further treatment of these objectives is also a component of the initial and subsequent annual audits of DWSP properties for "green" certification. In 1997, Quabbin became the first public land in North America to be certified by the Forest Stewardship Council for sustainable management, and the remaining DWSP properties have been recently audited for certification, as discussed at the beginning of this document. Information on the lands managed by the DWSP can be found on the Office of Watershed Management web site at: ***www.mass.gov/dcr/waterSupply/watershed/water.htm***

The missions of the above divisions/bureau also include, to varying degrees, technical assistance, education and regulation of activities on private forestland. The Bureau of Forest Fire Control & Forestry is most active on private forestlands. Information on the private forest land assistance programs (Service Forestry) administered by the Bureau is available at: ***www.mass.gov/dcr/stewardship/forestry/service/index.htm***. Information on the "Landowner Incentives Program" administered by the Division of Fisheries & Wildlife is available at: ***www.mass.gov/dfwele/dfw/dfw_lip.htm*** . Accordingly, goals and objectives for technical assistance, education and other state programs directed at non-state forestland will also be presented in this section. It should also be noted that the support of municipalities, conservation organizations and private landowners will be extremely important in order to increase the chances of successfully implementing management goals and objectives across the whole ecoregion.

Issues, Concerns, and Opportunities / Goals / Recommendations

The following are the issues, concerns, and opportunities as compiled at a public meeting held on November 22, 2004 at the Western DCR Regional Office in Pittsfield, MA, for the "Berkshire Ecoregional Assessment and Management Framework". A goal has been established for each. Recommendations that address the issues, concerns, and opportunities were developed in consideration of ecological, social, and economic factors to help guide resource managers. A second public meeting was held on June 22, 2005 to review the key findings of the assessment and recommendations. The recommendations and the assessment have been completed based on the consideration of the input received.

Issue #1: *Conservation of Biological Diversity*

Historic land use has left behind predominantly mid-late seral stage 70-90 year old forests in the five ecoregions. There is a need to protect populations of rare species and their habitats and meet the requirements of the Massachusetts Endangered Species Act. There are a number of contiguous blocks of mid-successional forests that include remnants of old growth forest in the five ecoregions. Early successional habitat is limited and lacking due to the type and distribution of disturbances

across the landscape favoring mid to late seral forest conditions. Early, mid, and late forest seral (successional) stages provide habitat features on which many species utilize; thus, the limited occurrence of early and late seral stages limits regional biodiversity. There is also a need to manage for native vegetation and reduce the impact of invasive species that threaten native vegetation.

Sub-Issue 1.1: *Rare Species:*

1.1a. Issues, Concerns, and Opportunities:

- Meet rare species conservation needs.
- Provide funding for rare species conservation.
- Speedy clear resolution of "Forest Cutting Plans' that contain rare species or their habitat including the release of cutting plan areas outside of the Natural Heritage polygons.

1.1b Goal**:** Protect rare species and protect and enhance their habitats.

1.1c. Recommendations:

- State land natural resource managers should prioritize rare species conservation needs and provide for population protection, maintenance and enhancement through habitat protection, maintenance, and restoration by means of vegetation management projects, in-kind-services, grants, partnerships, and other innovative methods and techniques.
- "Currently DCR, DFW, NHESP, and UMass Amherst's Department of Natural Resources Conservation and UMass Extension are cooperatively working on efforts to streamline the review and processing of cutting plans that contain rare species. Voluntary rare species Conservation Management Practices are being developed that if implemented would expedite the cutting plan approval process. DCR would train and designate rare species liaisons to assist landowners or their agents in the rare species review process prior to coordination with NHESP."

Sub-Issue 1.2*: Early Successional Habitat:*

1.2a. Issues, Concerns, and Opportunities:

- Evaluate existing conditions, and adopt appropriate early successional habitat goals (acres and percentages).
- Early successional habitat areas should equal the amount of late successional habitat.
- Seek opportunities to manage and consolidate blocks of early seral habitats.
- Target technical, financial, and educational assistance to private forests that complement state practices to enhance and maintain early successional habitats.

1.2b. Goal: Enhance and expand the occurrence of contiguous blocks of early successional habitats within the Ecoregions.

1.2c Recommendations:

- State agencies should develop early successional habitat goals based on existing information including existing vegetation, ecological capability, species habitat needs, etc. The amount, size, and distribution of early successional habitat (permanent and transitory) should be sustainable and sufficient to provide for the habitat needs for those

species utilizing this type of habitat. Areas targeted for early successional habitat should be consolidated and connected to maximize habitat objectives.

- Private landowners need to be encouraged to provide early successional habitats especially where their lands can complement state lands management habitat goals. The "*Landowner's Guide to Wildlife Habitat*" includes management guides for landowners who desire to provide wildlife habitat benefits through forest management. DFW's new Wildlife Landowner Incentives Program has a priority for funding management that enhances rare species and early successional habitat with the $2 million in this federally funded program. Technical, financial, and educational assistance should be provided to private forests to enhance and maintain early successional habitats.

Sub-Issue 1.3: *Late Successional Habitat (Forest Reserves and Extended Rotations):*

1.3a. Issues, Concerns, and Opportunities:

- Initiate a process for establishing a network of Forest Reserves in Massachusetts to provide ecological reference conditions; create or maintain under-represented ecological conditions; maintain or protect viable habitats or other features that are sensitive, rare or unique in the landscape and least likely to be maintained within managed forests; provide baseline scientific conditions or features for research, or to instruct forest management; and provide unique recreational and spiritual values for the citizens of the Commonwealth.
- Develop an objective scientific methodology for identifying potential small and large patch Forest Reserve areas on EOEA lands in Massachusetts with consideration of existing work by organizations such as The Nature Conservancy (TNC) and public input.
- Evaluate existing TNC work to help identify potential large "matrix" Forest Reserves on state lands that represent the less fragmented forest biodiversity in the state. Coordinate with municipalities, non-profit conservation organizations and landowners on management near state reserves. Prioritize land for acquisition near state reserves where landowners are interested in conservation of their land.
- Evaluate opportunities for large Forest Reserves using a collaborative, public-private partnership approach, with opportunities for public input.
- Establish Forest Reserves (large and small scale) on approximately twenty percent (20%) of state-owned lands statewide using a collaborative effort, GIS and other technology tools in conjunction with the local knowledge of land managers and other experts.
- Logistical or managerial constraints related to agency missions or mandates will be addressed during the site process for Forest Reserves.
- Include opportunities for public input (especially at local community level) into the identification, establishment and maintenance of a forest reserve system, including the posting of draft maps and methodologies on the EOEA website.
- Establish specific policy on activities allowed in Forest Reserves (active management, invasive species controls, motorized recreation, etc) in addition to their being set aside from commercial harvesting and open to non-motorized access.
- Evaluate impact of Forest Reserves establishment on local communities (timber revenues cost-sharing with towns, local forest industry impacts, balancing reserve designation by prioritizing other nearby state lands for active management, offer technical assistance to towns with reserves for town forest management programs).
- Evaluate and provide financial needs for maintaining (scientific methodologies and inventories for evaluating reserves) and enforcing Forest Reserve policy.

- Evaluate existing conditions, and adopt appropriate late successional habitat goals (acres and percentages).
- Manage contiguous blocks of existing or potential late successional forest either as Forest Reserves or on an extended rotation (100+ years).
- Coordinate with state, federal, and local governments and private landowners to assist with reserve and large block identification and management.
- Target technical, financial, and educational assistance to private forests that complement state practices to enhance and maintain late successional habitats.
- The economic impact of Forest Reserves on towns that would receive eight percent (8%) of state lands' stumpage value needs to be established and considered.

1.3b Goal: Establish a network of Forest Reserves in the Berkshire Ecoregions that provides a wide range of ecological and social benefits that enhances and expands the occurrence of contiguous blocks of late successional habitats within the Ecoregions.

1.3c. Recommendations:

- For the past two years EOEA has been working with cooperators and the public assessing the need for large and small-scale Forest Reserves, developing criteria for the establishment of Forest Reserves, and developing a proposal for state-wide large scale Forest Reserve System (Go to EOEA web site at: ***www.mass.gov/envir/forest*** to "Learn more about Forest Reserves" and "Comments on the Proposed Forest Reserve System Requested" for a full description of the complete Forest Reserve process).
- The Berkshire ecoregions include a greater percentage of Forest Reserves than other ecoregions due to the greater occurrence of relatively unfragmented forest and higher amounts of steep slopes, rare species habitat, and unique landforms than in other parts of the Commonwealth.
- The following state lands are within 4 of the 5 Berkshire Ecoregions and have been identified as potential large-scale Forest Reserves:

Site Name	Ecological Type	State Lands	*Acres State Land
Mt. Greylock	Taconic Mountains ELU group 9	Portions of the Mt. Greylock State Reservation	8,500
Mohawk/Monroe/Savoy	Southern Green Mountains ELU group 8	Portions of the Monroe State Forest	7,100
Chalet	Berkshire/Vermont Upland Ecoregion. ELU group 8	Portions of the Chalet, Stafford Hill, and Eugene Moran Wildlife Management Areas, and portions of the Windsor State Forest	7,112
Mt. Washington	Taconic Mountains ELU group 9	Portions of the Mt. Washington State Forest, and portions of the Jug End State Reservation & Wildlife Management Area	7,155
Middlefield	Berkshire/Vermont Upland Ecoregion. ELU group 7a	Portions of the Middlefield State Forest	2,900
Otis	Berkshire/Vermont Upland ELU group 6b	Portions of the Otis State Forest	769
East Branch Westfield River	Hudson Highlands Ecoregion ELU group 4a	Portions of the Gill Bliss State Forest, and portions of the Hiram Fox Wildlife Management Area	2,638

*Acres are approximate. Site evaluation, district site resource management plans and process will determine the location and size of Forest Reserves.

- The following summarizes the proposed performance standards for small and large-scale Forest Reserves. It should be noted that exceptions may exist dependent upon local conditions identified through the resource management planning process.
    - Commercial timber harvesting will not occur.
    - Lands managed for native species primarily through natural processes.
    - Restoration of species composition and ecological conditions where non-native species are present may occur through careful implementation emulating natural processes where desirable and practicable.
    - Non-destructive monitoring and research is encouraged
    - Invasive species may be treated.
    - Salvage is generally prohibited unless there is a major-significant threat to public safety or risk to adjacent private property.
    - Forest fires are aggressively contained and controlled utilizing light hands on land tactics where possible, unless a fire management plan is developed that calls for wildfire and "natural" prescribed fire occurrences under proper prescription standards and conditions.
    - Prescribe fire is allowed under carefully developed prescriptions and implementation standards consistent with DEP and local fire department approval.
    - Dispersed recreation facilities such as trails for passive recreation such as hiking and cross-country skiing are allowed. Trail density and use are consistent with forest reserve values.
    - Non-motorized recreation such as mountain biking and horseback riding may be allowed on designated trails, and will be determined on a case by case basis for each reserve.
    - Motorized recreation such as ATV/ORV use is prohibited, although snowmobiling is allowed on existing designated or permitted trails.
    - Recreation access, facilities, and uses that are pre-existing may be allowed if there are no practicable alternatives and do not substantially detract from the Forest Reserve values.
    - Recreation facilities will be maintained. However, maintenance should meet the objectives of the values of the Forest Reserve system.
    - Forest roads that are needed for public use, public safety, and agency administration will be maintained to safe and environmentally sound standards. Roads that are unwarranted may be restored to natural conditions.

- Extended rotation areas may be identified through the resource management planning process to protect and maintain special or unique places, rare habitats, recreational settings, or other features.
- Private landowners should be encouraged to provide late successional habitats, especially where their lands can complement extended rotations or forest reserves on state land reserves.
- Educational opportunities need to be provided to private landowners on the purpose, need, and value of Forest Reserves.
- Lost revenue to towns due to the Forest Products Trust Fund (8% of state timber sale revenues from DCR Forest & Park lands go to the town where the sale occurred) potential reduction is estimated at $6,400 per year. This is based on lands capable of

producing timber through sustainable forest management practices. However it should be noted that the lost revenue is potential and theoretical because current harvest levels are well under the threshold of sustainability. Also, if "green certification standards" which includes the establishment of reserves are met, harvest level should increase resulting in substantial increases in revenue generated from the Forest Products Trust Fund.

Sub-Issue 1.4: *Native Species:*

1.4a. Issues, Concerns, and Opportunities:

- Manage for native species
- Manage with consideration of natural process
- Inventory and reduce the threat of invasive species

1.4b. Goal: Prevent new occurrences of non-native, invasive plant species. Identify and control existing non-native invasive threats to native species.

1.4c. Recommendations:

- State lands should manage for native vegetation and private landowners should be encouraged to manage for native vegetation.
- State lands natural resource managers should understand the Berkshire ecological natural processes and where possible, desirable, and practicable should develop management prescriptions that emulate natural disturbance ecological principles. Private landowners should be aware of and be encouraged to manage their forests through emulating natural disturbance processes where possible, desirable, and practicable.
- Invasive species types, populations, distribution, and impacts should be inventoried and monitored. State lands and practices conducted on them should implement preventative measures, control, and maintenance to minimize the loss of native vegetation as a result of invasive species. Private landowners should be aware of invasive species and their adverse impacts to native vegetation and provided incentives to prevent and control invasive species.
- A State-wide Invasive Species Response plan needs to be prepared for catastrophic invasive species such as Emerald Ash Borer, Sudden Oak Death, Asian Long-horned Beetle, etc. as soon as possible.

Issue #2*: The Working Forest*

The concept of the working forest is an important value shared by many inhabitants of the Berkshires. A working landscape is a cultural feature and there exist strong local sentiments to continue responsible, sustainable multiple-use of the Berkshire forests. Local communities depend on the direct and indirect social and economic benefits associated with forest management activities; local wood processing facilities; business and employment opportunities, recreation, other uses, and aesthetic setting, and direct revenue from timber sales to local communities. Local communities should be encouraged to provide natural resource related multiple-use benefits of a "Working Forest" for the broadest range of ecological, social, and economic benefits.

2.1a. Issues, Concerns, and Opportunities:

- Currently state forests and parks are being minimally being managed. Forest Management should increase in a reasonable, sustainable manner that demonstrates environmentally sensitive practices that maintains water quality, diverse wildlife habitats, recreation, etc…
- The state through Resource Management Planning should commit to maintaining "traditional" forest uses such as responsible forest management, recreation, including hunting and fishing.
- Avoid non-renewable resource extraction and conversion to non-forest use.
- There is enough land to accommodate all uses, but all uses don't have to occur on each acre.
- Maintain access for disabled, usually motorized.
- Maintain a sustainable level of recreation in the Berkshires.
- Berkshire forests are valued economically due to their working forests.
- Evaluate and provide financial incentives to private landowners for maintaining (scientific methodologies and inventory for evaluating the effectiveness of working forests), managing (commercial harvesting, recreational opportunities), and encouraging a working forest policy.
- Lands purchased with sportsmen dollars manage to maximize hunting / fishing opportunities.

2.1b. Goal: Maintain Berkshire Ecoregions working forest management philosophy in an ecologically sound, and economically sustainable and socially responsible manner exceeding legal requirements and serving as a model for forest management for the regions.

2.1c. Recommendations:

- State lands should continue to be managed as working forests in an ecologically sound, economically sustainable, and socially responsible manner through green certification standards.
- State "Forest Management Plans" will be prepared for all state lands within the Berkshire Assessment area within the next 4 years to meet green certification standards and conditions and serve as a model of responsible forest management for private landowners.
- Resource Management Plans to meet Massachusetts legal mandates will be completed as soon as possible.
- The State will continue to recognize the importance of the working forest (particularly in the Berkshire Ecoregions) for its ecological, social, and economic regional importance.
- The State should develop and monitor policies and incentives for private landowners that make significant progress toward maintaining their lands as working forests for the long-term and monitor for effectiveness.
- Consider / Implement other Tax credit ideas / legislation drafted by CH. 61 Sub-Group at Forest Forum IV on November 10, 2005 (see meeting notes).
- Implement legislation that would allow tax credits for landowners with approved Forest Stewardship Program and Forest Viability Program plans.

Issue #3: *Fragmentation*

Forest lands within the Berkshire Ecoregions are currently being and potentially in the future threatened by fragmentation by residential and commercial development and parcelization (reduction

in the overall landownership size of their property) Concurrent impacts include loss of working forests, habitat loss, watershed impacts, and shrinkage in average ownership parcel size. These impacts reduce the ecological, social, and economic sustainability and viability of forests as well as a change in the characteristics of the Berkshire communities. Even though the forest within the ecoregions still has large blocks of unfragmented habitat, studies show that portions of this region of the state are becoming impacted by development (USDA / Forest Service, "Forests on the Edge"). Even small amounts of scattered development are causing reductions in these forest blocks. Large contiguous ownerships of state forest land exist in the Berkshire's, but the forest lands that buffer them are becoming more and more fragmented. Most of the development is from piecemeal single residential development on road frontage. The development of roadside abandoned fields (former agricultural lands) accounts for some of this development. There are also some scattered backland subdivisions.

3.1a. Issues, Concerns, and Opportunities:

- The loss of Berkshire forests and impacts to working forest as a result of development and parcelization.
- The impact on wildlife and habitats as a result of development and parcelization
- There is a need to provide incentives to private landowners to maintain large parcels in forest use.
- There is a need for the State to continue to protect open space and add to state public land ownership to reduce fragmentation and sprawl.

3.1b. Goal: Focus protection efforts on protecting the largest, most intact and threatened forest blocks in the Berkshire Ecoregions.

3.1c. Recommendations:

- Target a portion of limited state, federal, municipal and private land conservation funding to protect the largest unfragmented blocks of forest in the Berkshire Ecoregions.
- Educate landowners about the benefits of gifts or bargain sales for conservation, and work in partnership to protect high conservation value parcels.
- Identify lands in the Statewide Land Conservation Plan that are located in the Berkshire Ecoregions that are threatened by fragmentation, and prioritize these lands for protection.
- Use 5 or 20 year protection covenants to fund assistance to landowners to enhance working forests and land conservation (Forest Viability Program).
- Consider / Implement other Tax credit ideas / legislation drafted by CH. 61 Sub-Group at Forest Forum IV on November 10, 2005 (see meeting notes).
- Implement legislation that would allow tax credits for landowners with approved Forest Stewardship Program and Forest Viability Program plans.

Issue #4: *Forest Conditions, Health, and Productivity*

Forest conditions, health, and productivity are important issue in the Berkshire Ecoregions due to the importance of the forest from a quality of life, ecological, social and economic perspective. A number of issues, concerns, and opportunities were identified:

Sub-Issue 4.1 Forest Health

4.1a. Issues, Concerns, and Opportunities:

- Forest health concerns due to insects, diseases, non-native tree species, and poor species composition.
- Impacts to oak types as a result of gypsy moth, beech encroachment, and difficult and expensive regeneration requirements.
- Threat of hemlock wooly adelgid, ash decline, sugar maple decline, and beech bark decline.

4.1b. Goal: Maintain and enhance the species at risk such as oak, ash, sugar maple, and hemlock across the Berkshire Ecoregions.

4.1c. Recommendations:

- Provide public outreach and information on forest health issue and management opportunities.
- Initiate an early detection and rapid response management system.
- Work cooperatively with others to develop and implement integrated forest management strategies to minimize species at risk.
- Encourage proper silvicultural regeneration of oak and other species needing complex silvicultural prescriptions and greater investments.

Sub-Issue 4.2: High-grading (Removing through harvesting the highest quality and valuable trees and leaving a forest that is of low value tree species composition, and poor quality, form and value)

4.2a. Issues, Concerns, and Opportunities:

- Harvesting the best and highest value trees and leaving trees and a forest to low poor composition, quality, form, and value.
- Long-term affects of high-grading to future Berkshire forest and landowners economics.

4.2b. Goal: Reduce the practice of high-grading to less than 10% of harvests. It should be noted that state-wide long-term management is practiced on approximately 70% of lands harvested under a Forest Cutting Practices Act "Cutting Plan." Therefore, approximately 30% of the landowners are managing their lands under short-term management objectives which are subject to high-grading.

4.2c. Recommendations:

- Continue to implement and refine the new Forest Cutting Plan process that identifies cutting proposals considered to be high-grading, and requires that the landowner sign an acknowledgement of this fact.
- Monitor the extent of high-grading over the first year of this program change and take further action (including regulatory or legal changes), if necessary to reduce the practice.
- Send the new "Woodlot Owners Guide," which includes a detailed explanation of the environmental and economic benefits of long-term forest stewardship and the problems with high-grading, to the owners of 500,000+ acres of the state's private forestland over

the next two years (the guide has already been sent to 16,000 persons owning 700,000 acres of private forest land).

- Provide educational opportunities for private landowners on the problems with high-grading and the environmental and economic benefits of long-term forest management.
- Post an article on the Department of Conservation and Recreation web site outlining the problems and solutions for high-grading.
- Cooperatively work with industry, state agencies, research universities, consulting foresters and technical institutes to develop new technologies and promote existing industries that utilize low quality forest resources.
- Seek grants to establish and promote industries that utilize low quality forest resources.
- Seek opportunities to utilize and market forest products that are derived from low quality forest resources.
- Make state-owned forestland models of sound silvicultural practices and sustainable forest planning.
- Work with private consulting foresters to seek their cooperation and ideas on minimizing high-grading.
- Provide multiple incentives for offering forest management expertise to private forest landowners.
- Provide opportunities to work with harvesters and primary manufacturers to promote sustainability (including various Forest Certification systems) of natural resources.
- Consider research (i.e. – "Proceedings of the Conference on Diameter-Limit Cutting in Northeastern Forests") in the development of strategies that address this issue.
- Continue to convene the forest forum which began in the spring of 2004 with diverse representation from all parts of the forestry community, including consulting foresters. Implement goals of "A Call to Action to Maintain our Forest Heritage in Massachusetts".
- Implement recommendations of the "Massachusetts State Forestry Committee" (see "Quick Links": Meeting Minutes, Commissioner's Letter to MFC, and future postings).

Sub-Issue 4.3: Restoration Forestry (Abandoned farms, previously high-graded or mismanaged forests, off-site and/or non-indigenous plantations and re-introduction of American chestnut)

4.3a. Issues, Concerns, and Opportunities:

- Management of forests that were previously farms and/or mismanaged and are presently under-stocked and/or of poor quality
- Management of plantations that are composed of non-indigenous species such as Scots pine, Austrian pine, Norway spruce, etc. or off-site such as red or white pine plantations.
- Re-introduction of important regional tree species that is more disease resistant, such as American Chestnut, which was essentially extirpated through a blight and resistant blight stock, is being developed.

4.3b. Goal: Promote and manage forest that are well stocked, of good quality, composed of indigenous species, and appropriate for site conditions.

4.3c. Recommendations:

- The State will prioritize for forest management and silvicultural treatment (regeneration) existing stands that are poorly stocked or of poor quality. Private landowners will be encouraged to regenerate poor quality stands.
- The State will prioritize forest management and silvicultural treatments (regeneration) of plantations that are non-indigenous or off-site. Private landowners will be encouraged to regenerate plantations that are non-indigenous or off-site.
- As soon as proven Chestnut blight resistant growing stocked is developed and available for out-planting commercially the State will begin carefully and thoughtfully begin a re-introduction program that is ecologically and silviculturally sound and in consideration of available financial resources. Private landowners will be encourage to re-introduce the American chestnut where ecologically, silviculturally, and economically feasible.

Sub-Issue 4.4: Impacts of "Acid Rain" on forest resources of the Berkshires.

4.4a. Issues, Concerns, and Opportunities:

- Acid rain adversely affecting the Berkshire forest

4.4b. Goal: Provide awareness of the long-term impacts of acid rain on forest.

4.4c. Recommendations:

- Monitor forests for adverse impacts of elevated acid forest soils and advise federal and state official concerning acid deposition and its' affects on forests and forest productivity.
- Inform the public of acid rain affects on forests.

Sub-Issue 4.5: Prescribe Fire

4.5 a. Issues, Concerns, and Opportunities:

- Recognize prescribed fire as a valuable management tool.

4.5b. Goal: Utilize prescribe fire where it is ecologically, silviculturally, economically sound designed to restore, enhance and maintain biodiversity and desirable forest composition and structure.

4.5c. Recommendations:

- State lands natural resource managers through resource management planning, silvicultural prescriptions, and prescribe burning planning will plan and carefully implement prescribe burns to restore, enhance and maintain biodiversity and desirable forest composition and structure. Special attention will be made before ignition to be within burning plan conditions, staffing levels, and future weather and fire behavior conditions especially within close proximity to private property.
- Private landowners should be informed on the use, benefits and value, complexity, and cost of utilizing prescribe fire.

Issue #5: *Soil and Water Conservation*

The conservation of soil and water are important values of the Berkshire Ecoregions public. Collectively, the forests of the Berkshire Ecoregions protect and provide drinking water for residents

of both Massachusetts and Connecticut. Residents in communities such as Pittsfield and Springfield rely on forests to provide drinking water from surface water reservoirs being their primary sources. Many communities also rely upon wells that area also buffered by forests. The cost to maintain the quality of these water sources would greatly escalate without the protective function of forest cover. Both public and private forest lands buffer these valuable resources. This value needs to be better accounted for in support of conserving these watershed protection forests. The protection of forestlands should be increased to ensure that future water quality objectives can be achieved.

5.1a. Issues, Concerns, and Opportunities:

- Meet high water quality and quantity standards (ground and surface water).
- Maintain a high quality fisheries
- Maintain and protect Riparian Values
- Maintain soil productivity

5.1b. Goal: Enhance the protection of the ecoregions water supplies via improved land conservation and forest management. Maintain soil productivity

5.1c. Recommendations:

- Expand land conservation, in drinking water supplies, depending on the availability of financial assistance.
- Develop partnerships with others to submit multi-owner Federal Forest Legacy applications within the ecoregions Forest Legacy Areas that include water supply protection values of forestland.
- Continue to offer private landowners within the ecoregions incentives to join the Forest Stewardship Program, especially those on drinking water supply watersheds (50,000 acres have been added in 750 plans funded by EOEA in the past four years/as of 2006).
- Coordinate state forest management activities on drinking water watersheds to assure that water quality protection is a primary management objective.
- Evaluate the role of road construction and maintenance activities related to forest management operations as a possible source of water quality degradation near public drinking water supplies.
- Promote and implement forest management water, riparian, and soil best management practices

Issue #6: *Socio-Economic Factors*

The following are the socio-economic issues pertaining to the natural resources of the Berkshire Ecoregions.

Sub-Issue 6.1: Public Access to State Lands

One cause for concern is the potential loss of access to public (state) ownerships. Local communities seemingly have diminished capacity to maintain local roads. The availability of Chapter 90 funds, and the rules that govern the distribution of these funds, may play a role in this issue. These roads often provide the only means to gain access to manage these state ownerships. Management may become exceedingly difficult if these local roads are not maintained. If a town is unable to maintain a road that provides access, the town may consider abandoning or discontinuing the road. The State agency may consider assuming the

responsibility for its maintenance, provided that the state agency can secure funding to maintain the road. Also, an increase in road frontage residential development observed in this region often limits the ability to access the backland forest ownerships. This issue may not be one that is limited to only public land.

6.1a. Issues, Concerns, and Opportunities:

- Public access to state lands
- Lack of administrative access to state lands impacting natural resource management activities.
- Inadequate road maintenance due to neglect or lack of funding
- Safe and environmentally sound access to public lands.

6.1b. Goal: Provide access to public lands that meets administrative and public's needs, and is safe and environmentally sound.

6.1c. Recommendations:

- Complete the road inventory and condition survey which began in 2004 (over 35,000 acres of public land road inventory and condition survey have been completed in the Berkshire Ecoregions).
- Determine which roads are needed for public and administrative use and maintain roads through timber sales, town or state funding, co-operative agreements, etc.

Sub-Issue 6.2: Unregulated, Impacting Forest Uses and Activities

Unregulated or inadequately patrolled motorized vehicle (ORV/ATV) use on forestlands has resulted in increased soil erosion, water quality degradation, and other impacts to the forest resources of these ecoregions. There are four DCR properties that allow ATV/ORV use in the ecoregions. Mountain bike events are permitted and allowed in these areas. DFG/DFW does not allow motorized vehicles on state wildlife lands without a permit. These permits do not allow snowmobile use off of the specified trail. Unauthorized ATV use on DCR and DFW lands has been documented. The ORV/ATV pressure comes from out-of-state and individuals who live in close proximity to public lands. Unauthorized use instances tend to be specific to some properties more than others, and tend to be more of a local nature. 4-wheel drive vehicles are forest related damage and unauthorized use issues in the northern Berkshires.

6.2a. Issues, Concerns, and Opportunities:

- Increased soil erosion, water quality degradation, loss of forest vegetation from unregulated or unauthorized use of ATV/ORV.

6.2b. Goal: Reduce damage resulting from ORV/ATV unauthorized/unregulated activities within the ecoregions**.**

6.2c. Recommendations:

- Develop coordination agreements with local police departments, Environmental Police officers, and DCR Rangers in key impact areas to improve enforcement of existing regulations.
- Implement education programs to user groups and retailers regarding use of ORV/ATVs on public, non-profit and private forestlands.

- Evaluate ORV/ATV use and impacts on state lands as part of the management planning process for specific properties.
- Support the efforts and findings of the DCR statewide ORV Study Team.

Sub-Issue 6.3: Forest Biomass for Bioenergy

The Berkshire Ecoregions could sustainably produce large quantities of "green certified" forest biomass for bioenergy. Increasing reliance on this local, renewable and carbon-neutral energy source could enhance forest protection and management and benefit the rural economy, while reducing the region's dependence upon imported energy. Pulpwood and firewood markets are available, but fluctuate from time to time. Firewood markets are tied to the cost of oil. Eventually, this can create a conflict on the demand between pulpwood, firewood, and biomass availability.

6.3 a. Issues, Concerns, and Opportunities:

- Promote the utilization of renewable forest biomass for bioenergy.
- Use of forest biomass would produce sources of renewable energy, improve quality of forests, produce income and employment opportunities, and is carbon neutral.
- Potential conflicts in market conditions for biomass for energy, pulp, and firewood, etc.
- Long-term sustainability of forest biomass for bioenergy

6.3b. Goal: Promote the construction of forest biomass to bioenergy facilities and the sustainable use of local forest biomass.

6.3c. Recommendations:

- State continues to work with potential biomass to bioenergy developers.
- Promote the submittal of applications to renewable energy grant programs to support funding of a feasibility study for the design and construction of additional biomass facilities, forest resource sustainability studies within the ecoregions.
- Support the Forest & Wood Products Institute at Mount Wachusett Community College regarding the development and increased use and affordability of biomass and related renewable energy resources.
- DCR continues to conduct feasibility study on the installation of forest biomass to bioenergy technology at local state facilities as examples of use and economic benefits.
- Increase public awareness of the benefits of forest biomass to bioenergy as a renewable energy source, reduce dependence on foreign source of energy, cost effectiveness, improved quality of forests, improves landowners standing timber values, and provides local employment and revenue sources in rural areas.
- Implement DCR/DOE “Massachusetts Bioenergy Supply Development Initiative”, which will provide research and development on forest management and market infrastructure needs, and enable the state to provide the resources necessary to facilitate the biomass supply market to emerge. Funded by Department of Energy ($490,000) with matching funds provided by Massachusetts Technology Collaborative. This is a statewide initiative with emphasis on western Massachusetts.
- Consider / Implement other Tax credit ideas / legislation drafted by CH. 61 Sub-Group at Forest Forum IV on November 10, 2005 (see meeting notes).
  - Implement legislation that would allow tax credits for landowners with approved Forest Stewardship Program and Forest Viability Program plans.

Sub-Issue 6.4: Payment in Lieu of Taxes

Rural communities with a significant percentage of state lands are very concerned that their payments in lieu of taxes (PILOT) do not adequately pay for the cost of having these state-owned lands within their communities. Costs for activities such as forest fire fighting, search and rescue, and law enforcement often exceed the PILOT. Historically, rural communities received a similar per acre PILOT as suburban communities until the law was changed to assess open space land based on its fair market value for development. This change shifted the bulk of PILOT payments to suburban towns. The State must also work with towns to ensure viable communities are maintained, especially relative to acquisition of public lands.

6.4a. Issues, Concerns, and Opportunities:

- Inadequate PILOT payment to towns that have large acreage of state lands.
- Unfair burden of rural communities with state lands to provide for forest firefighting, search and rescue, law enforcement, etc at the expense of the local community.

6.4b. Goal: Provide more equitable compensation to rural municipalities for the costs of having state-owned lands within their communities.

6.4c. Recommendations:

- Convene a panel of balanced represented interests to review the current PILOT system. Propose approaches and alternative methods that adequately and equitably compensate local communities for the loss of property tax revenues from state forestland and specifically State Forest, Park, and Recreation land identified as Forest Reserves.
- Advocate for assessing the value of open space land based on its forest, water supply and recreational value. This would help to equalize PILOT payments across the Commonwealth.
- Advocate for more widespread support for legislation that will add a 20% surcharge to DCR facilities with 50% of this income going to the host community and 50% shared equitably by all PILOT communities.
- Advocate for more widespread support for legislation that will dedicate a larger portion of DSPR timber revenues to the towns in which the revenue is generated.
- Fully implement sustainable, Green Certified forest management plans for all state ownerships over the next 10 years as staffing permits, thereby increasing the amount of payments to local communities with DSPR land.

Sub-Issue 6.5: Forest Industries

A better forest product infrastructure in the region, coupled with a more predictable and consistent flow of local forest products, particularly off of state land, to those local markets, would improve the economics of the local forest products industry and also provide further incentive for the continued and sustainable management of local forestlands. The operational, infrastructural and other economic aspects of the forest product industry in this region are such that many of the forest resources harvested in this area are exported to other states or countries, with little or no local processing. This results in the loss of significant employment and value-added economic opportunities for the region. State bidding requirements result in logging contracts being awarded to the highest bidders. This results in the awarding of bids to contractors from outside the region or state, due to many economic aspects that place the local forest products industry at a competitive disadvantage.

6.5a. Issues, Concerns, and Opportunities:

- Outdated local forest product infrastructure
- Unpredictable and inconsistent flow of local forest resources especially from state land
- Flow of local forest resources to out-of-state competitors

6.5b. Goal: Strengthen the regional forest product economy by creating a more consistent and predictable flow of forest products to local forest industries.

6.5c. Recommendations:

- Promote local investments for forest products infrastructure
- In conjunction with private foresters and the local forest product industry, support an expanded program of sustainable forest management on both public and private lands in the ecoregions that will produce a more consistent and predictable flow of forest products.
- Increase educational opportunities for private landowners regarding the Forest Stewardship Program, Chapter 61 and the Tree Farm program.
- Work with the forestry community to advocate for consideration of the local benefits of value-added forest products in future economic stimulus legislation.
- Educate the legislature and general public about the significant economic opportunities lost to Massachusetts when the value-added component of forest products is exported to other states or countries.
- To extent possible, forest products should be grown, harvested, processed and sold locally within Massachusetts.
- Consider / Implement other Tax credit ideas / legislation drafted by CH. 61 Sub-Group at Forest Forum IV on November 10, 2005 (see meeting notes).
- Implement legislation that would allow tax credits for landowners with approved Forest Stewardship Program and Forest Viability Program plans.

Sub-Issue 6.6: Cultural Resources

Cultural resources are fragile and non-renewable. Once destroyed, they are gone forever, giving them a value that is difficult to calculate. Plans and procedures are needed to locate and assess the condition of both historic and prehistoric cultural resources and to protect these unique and significant resources. Without these plans and procedures in place, the management of certain lands will be limited and the ability to practice the type of silviculture, necessary to manage these lands efficiently and effectively, potentially diminished. Certain areas may also be entirely excluded from any management altogether until plans and procedures are in place.

6.6a. Issues, Concerns, and Opportunities:

- Inventory and protect cultural resources

6.6b. Goal: Assure the long-term protection of cultural resources in the Berkshire Ecoregions.

6.6c. Recommendations:

- Continue to educate and train state land management staff in the identification and protection of cultural resources.

- Continue communication channels between land managers and DCR Cultural Resource Management staff for information sharing, and to assure compliance with state and federal laws, regulations and procedures.
- Incorporate applicable BMPs into forest management operations.

Issue #7*: State, Regional and Global Issues*

Sub-Issue 7.1: Chapter 61and 61A

Undeveloped forestland provides a range of ecosystem services, including protecting drinking water supplies, moderating climate, filtering air pollutants, supporting biological diversity, providing open space and recreation, and attracting tourists. However, with recent increases in land values, Chapters 61 and 61A do not always provide enough incentive for keeping forestland undeveloped. Without adequate compensation, many landowners are removing their forestland from those programs and selling it for development. Chapter 61, the forest tax law, has enrolled approximately 350,000 acres, or about 15% of the state's private forestland. The percentage of land in the program has not significantly increased for some time. Changes have been suggested to make Chapter 61 more inviting to new enrollees. Tax credits for various vales of forest land have recently been discussed as a means to support retention of forest land by private landowners.

7.1a. Issues, Concerns, and Opportunities:

- Present tax incentives for chapter 61 and 61A are inadequate
- Need a "current use" law that effectively protects open space and encourages landowners to voluntarily participate

7.1b. Goal: Increase the private landowner participation in protecting open space.

7.1c. Recommendations

- Continue to meet with diverse representation from all parts of the forestry community, to identify and promote opportunities to provide greater incentives for forestland protection.
- Work with both public and private partnerships to expand public education programs (including website information, publications, demonstration forests and other means) regarding the ecosystem values of undeveloped forests.
- Monitor efforts on the federal level to develop better valuations of the ecosystem services that undeveloped forests provide.
- Support tax credits for sustainable forest management and changes to Chapter 61 to encourage expanded enrollment.

Sub-Issue 7.2: Planning Processes

The ecoregional planning process provides a great opportunity for the public to have input into state policies and actions with regard to the forests of Massachusetts. Widespread and timely notification of the availability of ecoregion documents to a broad range of interested parties is needed. Need to have increased notification over and above notification in "Environmental Monitor", to encourage all stakeholders to participate. There should be opportunities for future meetings to be dedicated to single issues.

7.2a. Issues, Concerns, and Opportunities:

- Need broad notification of planning process meetings and public opportunities for input.
- Need to have single issue meetings to discuss public issues that are most sensitive and controversial

7.2b. Goal: Expand public input and awareness of the ecoregional and site level planning processes across the state.

7.2c. Recommendations:

- Utilize the EOEA and agency web sites to post the schedule for ecoregion and site level document development, and the draft and final ecoregional guidance and resource management plan documents.
- Utilize state-wide and local mailing lists (approximately 1,100 interested federal, state and local officials, non-governmental agency, and publics to expand the efficiency and scope of the notification process for ecoregional documents.
- Advertise the availability of ecoregion and site level documents and comment periods in the Environmental Monitor.

Sub-Issue 7.3: Forest Management By-laws

The number of Local By-laws that impact the management of forest land has increased (i.e. – stonewall removal permit, curb cut permit, driveway permit, roadside permit, zoning – no cut, etc…). The enactment of local by-laws, and state laws and policies has lead to an increased regulatory cost in the management of forest lands. Some have excluded altogether the ability (cost prohibitive) to manage forest land which has had the unintended consequence of the conversion to some other land use (development) by the owner as forest landowners weigh their economic options of land ownership.

7.3a. Issues, Concerns, and Opportunities:

- Local by-laws impacting the ability of landowners to conduct forest management activities.

7.3b. Goal: Maintain landowners right to harvest according to the Forest Cutting practice Act.

7.3c. Recommendations:

- Keep landowners and local officials informed of the Forest Cutting Practices Act and landowners' right to manage their forests and the value of natural resource management vs. developing lands for residential or commercial use.
- Develop balanced "right to sustainable forestry" model bylaw and make available to communities.

Sub-Issue 7.4: Fire Management

7.4a. Issues, Concerns, and Opportunities:

- Encourage restoration/ maintenance of fire towers

- Develop and use a fire management policy for Berkshires that includes use of prescribe fire

7.4b. Goal: Fire management activities are appropriate planned and implemented in consideration of ecological, social, and economic factors.

7.4c. Recommendations:

- Fire towers should be maintained to proper safe standards.
- Fie management should be addressed at the site level planning. Prescribe fire consistent with ecological, silvicultural, fuels reduction, and public safety and risk to private and public property is a viable management toll and will be considered.

Sub-Issue 7.5: Forest Based Economics:

7.5a. Issues, Concerns, and Opportunities:

- Financial Business Plan should be developed for State land management.
- A portion of the timber sale revenues should be reinvested into the forest for forest health, habitat restoration, boundary maintenance, road maintenance, recreation, etc...
- If "Green Certification" is economical (costs of being certified outweighs net economic benefits, State should reconsider**.**

7.5b. Goal: State lands have resource management plans that include financial business plans that provide the finances for appropriate sustainable forest management, recreation, etc. uses and activities according to "green certification" standards in an affordable manner.

7.5c. Recommendations:

- Financial Business Plan will be developed for State land management as part of resource management plans
- Legislation should be supported to increase the forest products trust fund for local communities, provide revenue to the commonwealth, and retain revenue for improvement to state lands in equal shares.
- "Green Certification" efforts, costs, and benefits should be monitored for effectiveness.